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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/802,251

03/17/2004

Joc Hasiewicz

82548

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09/11/2006

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CHICAGO, IL 60603-3406

EXAMINER

RAYYAN, SUSAN F

ART UNIT

PAPER NUMBER

2167

DATE MAILED: 09/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/802,251

Applicant(s)

HASIEWICZ ET AL.

Examiner

Susan F. Rayyan

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-13 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 6,892,193 B1 issued to James P. Herzog et al ("Herzog") and US Publication Number 2003/0093521 A1 issued to Steven T. Schlonski et al ("Schlonski").

As per claim 1 Herzog teaches:

an asset fleet health monitoring system (see Abstract and column 5, lines 10-15);

a sensor data feed module for providing multivariate sensor data from a plurality of fleet assets (column 11, lines 10-11, acquire current set of signal data from monitored asset and column 4, lines 1-3, sensor);

a database for storing empirical models of assets in the fleet (Figure 5, Reference Number 52 and column 11, lines 10-25, models);

an estimation engine disposed to generate estimated sensor values and residuals in response to receiving from the data feed an observation of multivariate sensor data for

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an asset in the fleet (column 11, lines 28-34, estimate values and residuals , process estimation model), using a corresponding empirical model for the asset stored in said database (column 8, lines 38-39 and column 8, lines 50-59, model for asset);

an incident diagnostics engine module responsive at least to said residuals to determine whether an incident should be registered for said asset (column 11, lines 38-44, residuals processed by fault detection module to determine a fault indication).

Herzog does not explicitly teach a graphical interface module having a hierarchical fleet view of the health status of all assets and an exception-based view of all assets having registered incidents. Schlonski does teach this limitation at paragraph 20, hierarchical view of assets and paragraph 32, fault history view equates to the exception view) to manage the assets of multiple mutually-independent companies. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Herzog with a graphical interface module having a hierarchical fleet view of the health status of all assets and an exception-based view of all assets having registered incidents to manage the assets of multiple mutually-independent companies (paragraph 40, lines 1-5).

As per claim 2, same as claim arguments above and Herzog teaches:

wherein said estimation engine generates estimated sensor values according to a nonparametric kernel-based method (column 9, lines 20-25).

As per claim 3, same as claim arguments above and Herzog teaches:
wherein said estimation engine generates estimated sensor values according to a similarity-based modeling method (column 13, lines 29-34).

As per claim 4, same as claim arguments above and Herzog teaches:
wherein said incident diagnostics engine comprises rule objects having rules and actions, and executes rules against at least said residuals to determine whether an incident should be registered for said asset (column 10, line 62, bridging to , column 11, line 5).

As per claim 5, same as claim arguments above and Herzog teaches:
wherein said incident diagnostics engine has an action stack, and when a rule of a rule object evaluates to a particular condition, an action of the rule object is added to the action stack for execution, and where possible actions include registering an incident for the asset (column 11, lines 7-25, fault true then control action is taken).

As per claim 6, same as claim arguments above and Herzog teaches:
wherein an action of a rule object is to activate another rule object (column 11, lines 45-54).

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As per claim 7, same as claim arguments above and Herzog teaches:

further comprising a model creation module for processing historic reference data for an asset to generate a model for the asset and storing it in said database (column 8, lines 50-59, preparing process model with historical data).

As per claim 8, same as claim arguments above and Herzog teaches:

wherein said model creation module is functional to copy reference data and a model for an asset stored in said database for offline model modification, and further functional to copy a modified model into said database and activate it for runtime processing of incoming observations corresponding to the asset (column 5, lines 27-50).

As per claim 9, same as claim arguments above and Schlonski teaches:

...hierarchical format corresponding to the hierarchical fleet view of said graphical user interface module (paragraph 20, assets stored in hierarchical format)).

As per claim 10, same as claim arguments above and Schlonski teaches:

wherein the hierarchical format includes a hierarchy level corresponding to a collection of assets, a hierarchy level corresponding to individual assets, and a hierarchy level corresponding to modes of operation of individual assets (paragraph 20, hierarchical view of assets) .

As per claim 11, same as claim arguments above and Schlonski teaches:
wherein said graphical user interface module has an exception-based view of a subset of assets in the fleet having registered incidents (paragraph 20 and paragraph 32, graphical user interface displaying fault data equates to the exception-view).

As per claim 12, same as claim arguments above and Schlonski teaches:
wherein any exception-based view of assets in the fleet having registered incidents is functional to list registered incidents for a given asset under the asset in the view, upon a user action indicating selection of the asset for listing of its incidents (paragraph 20, 32 and Figure 6, status history alert and displaying fault data).

As per claim 13, same as claim arguments above and Schlonski teaches:
wherein said graphical user interface module is disposed to provide its views in a format viewable in a web browser, and an asset on any exception-based view is hyperlinked to activate a listing of its registered incidents under it in the view (paragraph 20, 32 and Figure 4, status history alert and displaying fault data).

Contact Information


3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Rayyan whose telephone number is (571) 272-1675. The examiner can normally be reached M-F: 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Susan Rayyan

September 5, 2006


JOHN COTTINGHAM
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